



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,434	02/10/2000	John S. Lee	510.030US1	3838

21186 7590 06/30/2003

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. BOX 2938  
MINNEAPOLIS, MN 55402

EXAMINER

CHU, KIM KWOK

ART UNIT	PAPER NUMBER
----------	--------------

2653

DATE MAILED: 06/30/2003

21

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/501,434

Applicant(s)

LEE ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Reconsideration filed on 4/16/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-19 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28 is/are allowed.
- 6) ☒ Claim(s) 1,4,9,13-19,21-27 and 31 is/are rejected.
- 7) ☒ Claim(s) 2, 5-8, 10-12, 29 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Remarks***

1. Applicant's Reconsideration (paper 20) filed on April 16, 2003 have been fully considered but they are not persuasive.

(a) on page 2, lines 9 and 10, Applicant states that "Hayashi et al.'s transporter carriage is specifically designed for one disk." Accordingly, Hayashi teaches that "two pallets 9 each containing a disc D" (Fig. 2; column 3, lines 2-4);

(b) on page 2, lines 11 and 13, Applicant states that "the limitation of "holding the first and a second compact disc simultaneously, such that the first and second compact discs are held in fixed relative positions" is not met by the structure of Hayashi et al.". Accordingly, Hayashi teaches that "two pallets 9 each containing a disc D" (Fig. 2; column 3, lines 2-4); and

(c) on page 2, lines 11 and 13, Applicant states that Hayashi's pallets will "actually drop the discs". Accordingly, Applicant's carriage also drop the discs after the discs are transported.

**Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. Claims 1, 4, 9, 13, 18, 19 and 21-26 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596)) in view of Hayashi et al. (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 1, a printer 50 for printing indicia on a first compact disc (Column 6, lines 17-20);

(b) as in claim 1, a recorder 43 for recording information on the first compact disc (column 2, lines 9-12);

(c) as in claim 1, a transporter carriage 45 for holding the first compact disc and moving the first compact disc to reach the recorder 43 (Fig. 1b); and

(d) as in claim 4, the transporter carriage 45 is movable in both a horizontal and vertical direction (Fig. 1b).

However, Balsom does not teach the following:

(a) as in claim 1, the transporter carriage for holding the first compact disc and moving the first compact disc between the recorder and the printer;

(b) as in claim 1, the transporter carriage comprises a single gripping head rotatable about a horizontal axis having first and second locations each for respectively holding the first and second compact disc simultaneously;

(c) as in claim 1, the first and second compact discs are held in fixed relative positions coextensive along a common axis in different planes while the first and second compact discs are engaged by the gripping head.

Hayashi teaches a disc inverting mechanism having above features. For example, Hayashi teaches the following:

(a) a transporter carriage 8 for holding the first compact disc and moving the first compact disc in both vertical and horizontal direction (Fig. 4);

(b) the transporter carriage 8 comprises a single horizontally rotatable gripping head 9 having first and second locations each for respectively holding the first and second compact disc simultaneously (Fig. 2);

(c) the first and second compact discs are engaged by the gripping head 9 (Fig. 4); and

(d) the first and second compact discs are held in fixed relative positions while the first and second compact discs are engaged by the gripping head 9 (Fig. 4).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage means in one location and then move the selected disc to the printer similar to the claimed features.

4. Claims 9 and 13 have limitations similar to those treated in the above rejection, and are met by the references as discussed above. Claim 9 however also recites the following limitations:

(a) as in claim 9, a supply station 46 for holding a plurality of blank compact discs (Balsom's Fig. 1b); and

(b) as in claim 13, the first gripping location 9 includes a centering feature 14 to axially align the first compact disc with the first gripping location (Hayashi's Fig. 2).

5. Claims 14-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596) in view of Hayashi (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 14, a printer 50 for printing indicia on a compact disc (Fig. 2);

(b) as in claim 14, a recorder 43 for recording information on the compact disc (Fig. 2);

(c) as in claim 14, a transporter carriage 45 for simultaneously holding a compact disc in a fixed axial relation (Fig. 1b);

(d) as in claim 14, gripping a first compact disc with the transporter carriage 45 (Fig. 1b);

(e) as in claim 14, moving the transporter carriage 45 to the recorder and placing the first compact disc in the recorder (Fig. 1b);

(f) as in claim 14, moving the transporter carriage 45 to a supply location and gripping a second compact disc with the transporter carriage while the first compact disc is in the recorder (column 2, last line, column 3, lines 1-9);

(g) as in claim 14, removing the first compact disc from the recorder with the transporter carriage 45 (column 2, last line, column 3, lines 1-9);

(h) as in claim 14, placing a second compact disc in the recorder after the first compact disc has been removed (column 2, last line, column 3, lines 1-9);

(i) as in claim 14, moving the transporter carriage 45 to the printer 50 and placing the first compact disc in the printer (column 5, lines 65-67); and

(j) as in claim 17, removing the first compact disc from the printer (inherent feature where a disc needs to be removed to other location after it is being printed).

However, Balsom does not teach the following:

(a) as in claim 14, the transporter simultaneously grips both a first and second compact discs on first and second planes;

(b) as in claim 14, the first and second compact discs are coextensive along a common axis in different planes;

(c) as in claim 14, rotating the transporter carriage about a horizontal axis;



(d) as in claim 15, the transporter carriage includes a gripping head having first and second grippers for gripping the first and second compact disc;

(e) as in claim 16, the first compact disc is rotated about its axis to a predetermined rotational position prior to placing the first compact disc in the printer;

(f) as in claim 17, selectively extending a tray of a compact disc organizer; and

(g) as in claim 17, placing the first compact disc in the extended tray for subsequent removal by a user.

Hayashi teaches a disc inverting and conveying mechanism with a transporter carriage having all the above claimed features from (a) to (g). For example, Hayashi teaches the following:

(a) as in claim 14, the transporter 8 simultaneously grips both a first and second compact discs on first and second planes (Fig. 2);

(b) as in claim 14, the first and second compact discs are coextensive along a common axis in different planes (Fig. 2);

(c) as in claim 14, rotating the transporter carriage about a horizontal axis (Fig. 2);

(d) as in claim 15, the transporter carriage 8 includes a gripping head 9 having first and second grippers for gripping the first and second compact disc (Fig. 2);

(e) as in claim 16, the first compact disc is rotated about its axis to a predetermined rotational position prior to place the first compact disc (Fig. 2);

(f) as in claim 17, selectively extending a tray of a compact disc organizer 2 (Fig. 8); and

(g) as in claim 17, placing the first compact disc in the extended tray 2 for subsequent removal by a user (Fig. 8).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage means in one location and then move the selected disc to the printer similar to the claimed features.

6. Method claims 18, 19 and 21-26 are drawn to the method of using the corresponding apparatus claimed in claim 1.

Therefore method claims 18, 19 and 21-26 correspond to apparatus claim 1 and are rejected for the same reasons of anticipation (obviousness) as used above.

7. Claims 27 and 30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596)) in view of Hayashi et al. (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 27, a printer 50 for printing indicia on a first compact disc (Column 6, lines 17-20);

(b) as in claim 27, a recorder 43 for recording information on the first compact disc (column 2, lines 9-12);

(c) as in claim 27, a transporter carriage 45 is movable in a vertical direction (Fig. 1b);

However, Balsom does not teach the following:

(a) as in claim 27, the transporter carriage having a gripping head that is rotatable about a horizontal axis;

(b) as in claim 27, the gripping head includes first and second gripping locations to respectively hold the first and a second compact disc on first and second parallel planes; and

(c) as in claim 27, the first and second compact discs maintain a fixed axial relation while engaged by the gripping head.

Hayashi teaches a disc inverting mechanism having above features. For example, Hayashi teaches the following:

(a) the transporter carriage 8 having a gripping head 21 that is rotatable about a horizontal axis (Fig. 4);

(b) the gripping head includes first and second gripping locations 9 to respectively hold the first and a second compact disc on first and second parallel planes (Fig. 2); and

(c) the first and second compact discs maintain a fixed axial relation while engaged by the gripping head (Fig. 9).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage

means in one location and then move the selected disc to the printer similar to the claimed features.

8. Claim 30 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above. Claim 30 however also recites the following limitation which is also taught by Hayashi:

(a) as in claim 30, the first gripping location comprises a centering feature 14 to axially align the first compact disc with the first gripping location (Fig. 2).

***Allowable Subject Matter***

9. Claim 28 is allowable over prior art.

10. Claims 2, 5-8 and 10-12, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 2, 8 and 12, the prior art of record fails to teach or fairly suggests that the transporter carriage holds the first and second compact discs using a vacuum.

As in claims 6 and 10, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a supply location having a vertically extending rod sized to fit within a central opening provided in the first compact disc.

As in claim 7, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a gripping head includes a motor for selectively rotating the first compact disc about its axis.

As in claims 5 and 11, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a selection mechanisms coupled to a plurality of disc trays for selectively moving the plurality of disc trays such that the first compact disc can be placed on the selected disc tray for storage.

As in claim 28, the prior art of record fails to teach or fairly suggests that a compact disc processing system having a vacuum pump coupled to the gripping head to selectively provide a vacuum to the first and second gripping locations. includes a transporter carriage comprising a gripping head that is rotatable about a horizontal axis.

As in claim 31, the prior art of record fails to teach or fairly suggests that a compact disc processing system having a plurality of deflectable fingers which extend from the gripping

head.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

**12. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.  
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for  
entry. Or:

(703) 746-6909, (for informal or draft communications,  
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park  
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor  
(Receptionist).

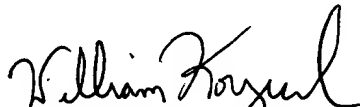
Any inquiry of a general nature or relating to the status  
of this application should be directed to the Group  
receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to Kim CHU  
whose telephone number is (703) 305-3032 between 9:30 am to  
6:00 pm, Monday to Friday.

KE 6/25/03

Kim-Kwok CHU  
Examiner AU2653  
June 25, 2003

(703) 305-3032

  
WILLIAM KORZUCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600